



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Re the application of:

Clifford Kraft et Vasilios
Dossas

Serial Number: 10/674,151

Filing Date: Sept 29, 2003

Title: SYSTEM AND METHOD FOR
PROVIDING REAL-TIME ROAD
CONSTRUCTION INFORMATION
FOR VEHICLE TRIP
PLANNING SYSTEMS

ART UNIT: 3661

EXAMINER: Y. Beaulieu

AUGMENTED BRIEF ON APPEAL

Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

This augmented brief is being entered due to the examiner's Office
communication issued Nov. 16, 2007 concerning the argument section of the
original brief.

This appeal is taken from the final rejection of all claims pending in this
application, claims 9-23 (See Appendix).

The notice of appeal to the Board of Patent Appeals and Interferences
was timely filed by first class mail on June 7, 2007.

APPEAL BRIEF

This is an appeal to the United States Patent Office Board of Patent Appeals and Interferences of application number 10/674,151 filed Sept. 29, 2003.

I. Real Party of Interest

The real parties of interest are the inventors Clifford H. Kraft and Vasilios Dossas.

II. Related Appeals and Interferences

There are no other related appeals or interferences.

III. Status of the Claims

Claims 9-23 are being appealed.

Claims 9-23 are pending and have been finally rejected. The status of each claim is as follows:

Claims 1-8 (cancelled).

Claims 9-23 (previously presented) - rejected.

The claims should be considered separately and do not stand or fall together.

IV. Status of Amendments

There have been no amendments after the final rejection.

V. Summary of Claimed Subject Matter

A. General Description

The present invention provides a system that allows vehicle telemetric equipment and other trip planning systems to be updated with the location of the latest road construction. A central information gathering location for gathering road construction information for various vehicle routes can provide this road construction information to on-board telemetrics or trip planning equipment allowing the equipment to display the road construction on a map along with other map data. The road construction information can contain data on the number of lanes affected, construction work times and estimated delay times. The provider of the road construction information can charge a fee for the service. The presence of this information overlaid on a map allows the user to evaluate each route based on the presence of construction and to decide whether to take that route or to detour or take a completely different (and maybe longer) route. For example, a user trying to travel from Chicago to Albuquerque might see that there are many different construction sites along Route 55 between Chicago and Saint Louis. This user could decide to go west instead and then cut down to Albuquerque through Kansas instead of taking the shorter route through Saint Louis and Missouri.

Figure 1 shows a block diagram of a representative system where an information provider (1) receives road constructing information from direct observations (2), federal and state agencies (3) and driver reports (4). Update to

vehicle on-board equipment can be made by a wireless interface (5) or a CD-ROM (6) or like device.

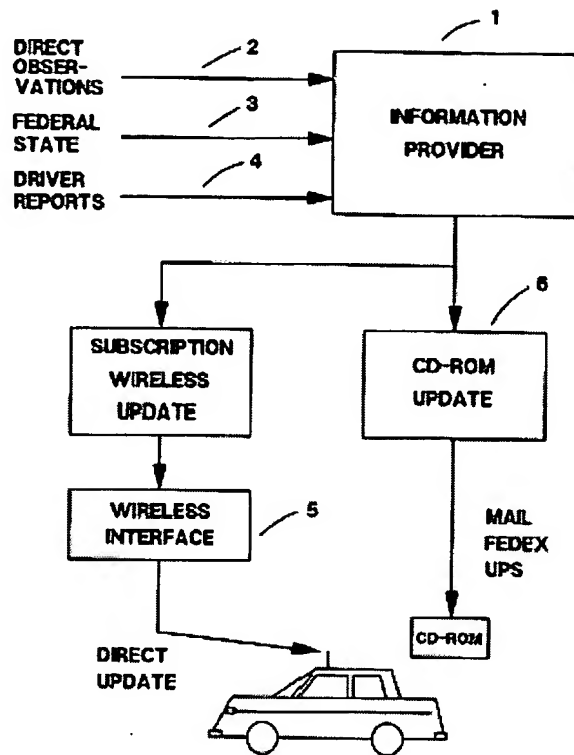


FIGURE 1

Figure 2 shows a simulated map with road construction information shown and an alternate route suggested.

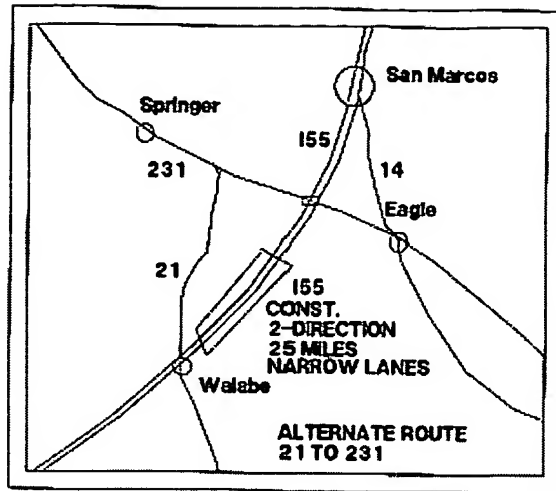


FIGURE 2

B. Mapping of the Independent Claims to the Specification - Associated Structure for Means plus Function Elements

The independent claims are 9, 17 and 21. References to the pages, paragraphs and lines in the specification refer to the specification document as filed on Sept. 29, 2003. Claim 9 contains a means plus function element.

Independent Claims

Claim 9. A system for providing road construction information to vehicle on-board telematics systems (**Abstract**) comprising:

least one telemetric system in a vehicle (p. 1, line 17 - p. 2, lines 1-5), said telemetric system displaying map information (p. 2, line 4);

a central information gathering location (**Fig. 1, ref. 1**) for gathering road construction information for vehicle routes (**Fig. 1, refs. 1, 2, 3**), said road construction information being at least partially supplied by a government agency (**Fig. 1, ref. 3**);

a means (**Fig. 1, refs. 3, 6**) for providing said road construction information to said telematics system from said central location, wherein said telematics system displays (**Fig. 2, p. 3, line 18**) said road construction information and map information (**Fig. 2**).

Means plus function:

function: providing road construction information to said telematics system from said central location.

Structure: Fig. 1, ref. 5 (wireless interface), Fig. 1, ref. 6 (CD Rom), p. 6, lines 16-22 and p. 7, lines 1-3 (automatic telephone call) (broadcast).

Claim 17. A method of providing for wide area trip planning with a telematics system located in a vehicle (**Abstract**) comprising the steps of:

receiving road construction information from at least one governmental agency for a plurality of routes (**Fig. 1, ref. 3**);

transmitting said road construction information system to said telematics system (**Fig. 1, refs. 5, 6; p. 6, lines 16-22, p. 7, lines 1- 3**);

causing said road construction information to be displayed (**Fig. 2, p. 3, line 18**) in a vehicle and causing map (**Fig. 2**) information to be displayed in the vehicle wherein said construction information includes number of lanes affected (**p. 4, line 2**) and times when said lanes are affected by said construction (**p. 4, lines 2-3**).

Claim 21. A system for long distance trip planning (**Abstract**) comprising a computer (**p. 3, lines 8-11**), a storage device (**p. 3, line 22; p. 8, lines 10-13**), and a communications sub-system (**Fig. 1, refs. 5, 6**) wherein said computer receives reports of road construction sites through said communications sub-system (**Fig. 1, ref. direct update**) and stores said reports in said storage device (**p.8, line 18**), said computer then displaying map information and construction information (**Fig. 2**).

VI. Grounds of Rejection to be Reviewed on Appeal

Claims 9-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bruce et al. (U.S. Patent number 6,765,998).

VII. History of the Prosecution

A provisional application was filed Sept. 30, 2002. The utility application was filed Sept. 29, 2003. A restriction requirement was issued, and an election made Nov. 23, 2004. A first office action was received Dec. 1, 2004. A response was filed March 1, 2005. A notice of allowance was received May 16, 2005. The

issue fee was paid Aug. 12, 2005. A notice of withdrawal of the allowance and non-final office action was received Aug. 19, 2005. A response was filed Nov. 9, 2005. A second non-final office action was received Jan. 17, 2006. A response was filed April 10, 2006. A telephone interview was held with the examiner on April 6, 2006. A final office action was received June 21, 2006. A notice of this appeal was filed Sept. 18, 2006. The examiner re-opened prosecution in an amendment issued March 7, 2007 rejecting the claims as obvious over only one of the previous references (Bruce et al.). The applicant filed a second notice of appeal on June 7, 2007 along with a request for a pre-appeal brief conference. The applicant has not been informed of the status of that request and is timely filing this appeal brief July 7, 2007.

VIII. Argument

I. Issues:

(A) Whether claims 9-23 are rendered obvious by the Bruce reference

II. Introduction:

A. Description of the Bruce et al. Reference

Bruce et al. (U.S. 6,765,998) teach a method and system for providing a telephone caller information assistance such as driving directions from a starting location to a destination location. First an attempt is made to automatically locate the caller, then the principal method of providing directions to a caller is to play an audio set of instructions (Abstract). The caller first receives a message that his call is being transferred to an operator; the operator finds the directions from

a database, and the directions are played back verbally over the telephone (Fig. 4 and Abstract).

In the preferred embodiment, the user first places a telephone call to the access system and then selects a desired destination location. This may be the name of a person, an address, hotel, store, restaurant, office, or originate from the white or yellow pages. The callers location is automatically determined, and the service automatically communicates step-by-step driving directions to the caller by synthesized voice, from a live operator or by a voice mail or Email message (Col. 2, lines 28-67). In particular, the route to the destination may be mapped "taking into account the route traffic, travel times, road conditions, and route weather conditions." (Col. 2, lines 57-60). What is not taught is displaying for the user location along the route of any road construction sites. Only general "route traffic" and "travel times" are taught. While these may in some cases relate to the presence of road construction, they alone, do not locate road construction sites for the user. Bruce teaches that road construction information may be obtained from local travel authorities (Col. 9, lines 25-35), and that "the traffic/construction can be used by the system to avoid routes that are closed or are experiencing undue delays due to construction." (Col. 9, lines 46-51). However, Bruce only uses this information to automatically choose a route for the user; there is no teaching or suggestion of displaying the location of construction sites so that the user can themselves choose the route based on the construction data. In contrast, the applicant's invention allows the user to evaluate all road

construction along any route and then decide, possibly based on the amount and length of the construction, whether to use that route or to choose another.

Figure 3 shows some of the major differences between the Bruce et al. reference and the applicant.

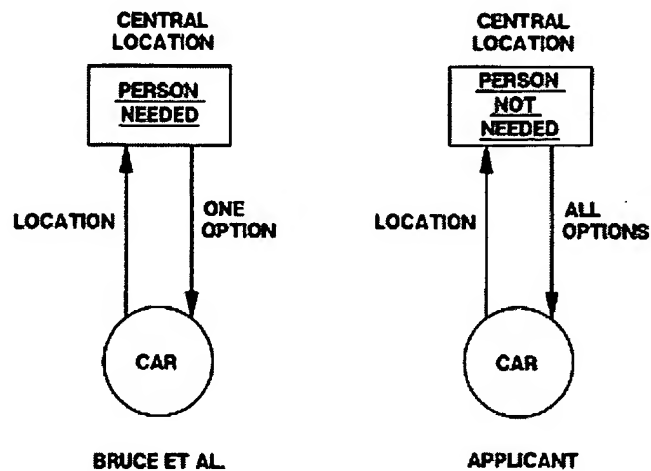


Figure 3

Bruce et al. teach that a person phones in from a car or elsewhere and the location is determined. A live operator or other person is then needed to return information to the user. The user only receives one option on how to get where he or she wants to go - a particular route determined by the system of Bruce et al. In contrast, in the applicant's invention, no person is needed, and even more important, the user is allowed to consider all options as to routes since road construction information is returned for any regions the user wants to see. As previously stated, a driver may a totally different route even through different

states to reach the destination. This is a decision the user is free to make since he or she has complete road construction information for any proposed route. Bruce et al. teach finding one particular route from the user's location to a chosen destination; the applicant teaches supplying road construction information for any route between any points, not just a single route from the current location of the user to some other fixed location. With the applicant's invention, for example, a user could be in Seattle planning a trip from Phoenix to Dallas. This is impossible with the system of Bruce et al.

III. The Legal Standard for Obviousness

The examiner has the burden under 35 U.S.C. §103(a) to establish a *prima facie* case of obviousness. In re Thrift, 298 F.3d 1357, 1363, 63 U.S.P.Q.2d 2002, 2006 (Fed. Cir. 2002). In the absence of a proper *prima facie* case of obviousness, an applicant who complies with the other statutory requirements is entitled to a patent. In re Brouwer, 77 F.3d 422, 425, 37 U.S.P.Q.2d 1663, 1666 (Fed. Cir. 1996) ("when the references cited by the examiner fail to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned"). To establish a *prima facie* case of obviousness, the examiner must show some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art that would lead that individual to combine the relevant teachings of the references. In re File, 837 F.2d 1071, 1074; 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The prior art references relied upon, when combined, must teach or suggest all the claim limitations of the invention. In re Royka, 490 F.2d 981, 984, 180 U.S.P.Q. 580,

582 (CCPA 1974). In addition to the requirement that each and every claim limitation be taught by the prior art, there must be some reason, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See KSR case recently decided by the U.S. Supreme Court. Furthermore, the reason to make the claimed combination must be found in the prior art, not in the applicant's disclosure. In re Vaeck, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). To prevent the use of hindsight based on the invention to defeat patentability of the invention, the examiner is required to show a reason to combine. M.P.E.P and KSR case recently decided by the United States Supreme Court. If an independent claim is found to be nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is also nonobvious. In re Fine, 837 F.2d 1071, 1076, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

IV. The Bruce et al. reference does not render claims 9-23 obvious

Claims 9, 17 and 21 (Independent claims).

The examiner states that the Bruce et al. reference contains all of the limitations of the claims except information concerning affected lanes. For this, he cites the Desai reference. However, as previously argued under anticipation, the Bruce reference does not teach displaying construction information. In fact, Bruce teaches away from any displaying of information and states that step-by-step automatically computed directions should be supplied to the user by voice. Even the operator in the Bruce invention does not get to see any construction information; rather, the Bruce system automatically considers construction

information in generating a route. Adding the Desai reference does not cure this. For this reason, the examiner has failed to make a *prima facie* case of obviousness.

Table 1 shows the elements of the independent claims missing in Bruce et al.

<u>Claim Limitation</u>	<u>Bruce et al.</u>
Claim 9:	No
At least one telemetric system;	
A central information gathering location;	Yes
means for providing road construction information to said telemetric system;	No
Claim 17 - telemetrics system	No
receiving road construction information from at least one governmental agency;	Yes
transmitting said road construction information to said telemetrics system;	No
causing said the construction information to be displayed in a vehicle including closed lanes and times;	No
Claim 21: - trip planning system	Yes
computer;	Yes - not in car
storage device;	Yes - not in car
communications sub-system;	Yes
computer receives reports of road construction sites;	Yes

computer stores the reports in the storage device;	Yes
computer displays map information and road construction information.	No

Table 1

The examiner admits that Bruce et al. fail to teach providing road construction information through a telematics system from a central location with the information to be displayed in the vehicle (Current Office Action, p. 2, bottom), but states that it would be obvious to one of ordinary skill in the art from the reference. Since the examiner's previous rejection using Bruce et al. and Desai did not make a *prima facie* case of obviousness because all of the elements of the claim were not taught either explicitly or implicitly, using Bruce et al. alone cannot possibly make a *prima facie* case.

Dependent claims 2-8, 10-16, 18-23

As a first point, the applicant has already shown that Bruce et al. do not render the base claims obvious. If this is true, it is impossible for Bruce et al. to then render the dependent claims obvious.

As to claims 10, 12, 19 and 23, while Bruce et al. mention originally calling in using a wireless telephone; however, the applicant claims using wireless communication to communicate road construction information to a vehicle telematics system. Bruce et al. are silent on this. Also Bruce et al. do not mention a local area network system of claim 12. In fact, at col. 8, lines 60-62, Bruce et al. teach away from a local area network by stating: "These portable-

computing systems can be used to access into the system on a dialup telephone line that can be provided to allow access by a computer terminal.”

As to claim 11, Bruce et al. do not teach presenting road construction information on a map.

As to claim 13, Bruce et al. do not teach presenting the number of affected lanes to the user.

As to claims 14 and 18, Bruce et al. do not teach presenting construction work times to the user.

As to claims 15 and 16, Bruce et al. do not teach charging a fee for service. The examiner states this is inherent since according to the examiner the user is a subscriber. However, Bruce et al. only teach that the user is a telephone subscriber, that is like most of us, pays to have monthly telephone service. Bruce et al. do not teach that the user pays extra for a service that reports road construction information (or for any extra service).

As to claim 20, Bruce et al. do not teach presenting any information to the user in text form. Bruce et al. teach that an operator may see driving instructions in text form. They teach away from sending text form to the user in Col . 5, lines 42 et seq. where they teach a text-to-speech system implying that the user must receive speech.

As to claim 22, Bruce et al. do not teach any device mounted in a vehicle that communicates information to a user, and in particular, they do not teach any device in a vehicle that shows the location of road construction along a route.

IX. Conclusion

The Appellant respectfully submits that the that the Bruce et al. reference alone, or in combination with any of the other cited art, fails to render the claimed invention obvious and respectfully asks the Board to allow the claims.

Respectfully submitted



Clifford H. Kraft (Reg. No. 35,229)
Attorney of Record

APPENDIX I. Claims on appeal

Claim 9. A system for providing road construction information to vehicle on-board telematics systems comprising:

at least one telemetric system in a vehicle, said telemetric system displaying map information;

a central information gathering location for gathering road construction information for vehicle routes, said road construction information being at least partially supplied by a government agency;

a means for providing said road construction information to said telematics system from said central location, wherein said telematics system displays said road construction information and map information.

Claim 10. The system of claim 9 wherein said means for providing said road construction information to said telematics systems is wireless.

Claim 11. The system of claim 9 wherein said construction information is displayed on said map information.

Claim 12. The system of claim 10 wherein said wireless means is a local area network.

Claim 13. The system of claim 9 wherein said road construction information further contains information on number of lanes affected.

Claim 14. The system of claim 9 wherein said road construction information further contains information on construction work times.

Claim 15. The system of claim 9 wherein a fee is charged for said road construction information.

Claim 16. The system of claim 15 wherein said fee is a periodic subscription fee.

Claim 17. A method of providing for wide area trip planning with a telematics system located in a vehicle comprising the steps of:

receiving road construction information from at least one governmental agency for a plurality of routes;

transmitting said road construction information system to said telematics system;

causing said road construction information to be displayed in a vehicle and causing map information to be displayed in the vehicle wherein said

construction information includes number of lanes affected and times when said lanes are affected by said construction.

Claim 18. The method of claim 17 wherein said times include work start and stop times.

Claim 19. The method of claim 17 wherein the step of transmitting is by cellular telephone.

Claim 20. The method of claim 17 further comprising said telemetrics system presenting information relating to said road construction in text form.

Claim 21. A system for long distance trip planning comprising a computer, a storage device, and a communications sub-system wherein said computer receives reports of road construction sites through said communications sub-system and stores said reports in said storage device, said computer then displaying map information and construction information.

Claim 22. The system of claim 21 wherein said computer is mounted in a vehicle.

Claim 23. The system of claim 21 wherein said communications sub-system includes cellular telephone.

APPENDIX II. Evidence Appendix

NONE

Appendix III. Related Proceedings Appendix

NONE



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